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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,653	09/09/2003	Francoise Le Bolzer	PF020108	3654
24498	7590	04/19/2005	EXAMINER	
THOMSON LICENSING INC. PATENT OPERATIONS PO BOX 5312 PRINCETON, NJ 08543-5312			DINH, TRINH VO	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/659,653	Applicant(s) LE BOLZER ET AL.	
	Examiner Trinh Vo Dinh	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 03/16/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date, _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

This is a response to amendment filed 03/16/2005. The objections of claims 2-5 has been withdrawn in view of the amendment. The amended claims 1-5 and newly added claims 6-9 necessitate a new ground of rejection as discussed below.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "23" on page 4 line 20.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "the width of the metallic layer cover the third face is different from the width of the metallic layer covering the second face" in claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Herve et al (US 6,304,220 B1 of record).

Herve discloses, in Fig. 1, dielectric resonator antenna (2) comprising a block of dielectric material (stacked dielectric resonant structures CDE and ABC constitute a block of dielectric material), said block having a first face (A) intended to be mounted on an earth plane and covered with a metallic layer (col. 4, lines 47-52, col. 6, line 60, col. 8 line 29 and Fig. 1), wherein at least one second face (the face perpendicular to A) perpendicular to the first face (A) is covered with a metallic layer (EL or EH, col. 4, lines 47-52, col. 7 line 64 to col. 8 line 13) contacting the metallic layer cover the first face (A), the metallic layer (EL or EH) covering the second face extending over a width less than the width of the second face and over a height less than or equal to the height of the second face (Fig. 1).

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With respect to claim 2, Herve further discloses, in Fig. 1, the metallic layer (EL, EH) covering the second face being centered with respect to the width of the second face.

With respect to claims 3-4, Herve discloses the metallic layer (EL or EH) covering the second face being extended via a metallic layer (EH or EH on face E) covering a third face (E) parallel to the first face (A), and the metallic layer (EL or EH) covering the third face (E) stretching over a width less than the length of the third face.

5. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kundu et al (US 6,621,381 B1 of record).

With respect to claim 1, Kundu discloses, in Fig. 15, dielectric resonator antenna (abstract) comprising a block of dielectric material (1500), said block having a first face (1502) intended to be mounted on an earth plane and covered with a metallic layer (col. 15, lines 30-49), wherein at least one second face (the face 1502c or 1503) perpendicular to the first face is covered with a metallic layer (1502c or 1503, col. 15, lines 55-59) contacting the metallic layer cover the first face (1502), the metallic layer (1502c, 1503) covering the second face extending over a width less than the width of the second face and over a height less than or equal to the height of the second face.

With respect to claims 3-5, Kundu discloses, in Fig. 15, the metallic layer (1503) covering the second face being extended via a metallic layer (1501, col.5, lines 55-67) covering a third face (the face has layer 1501) parallel to the first face (face of layer 1502), the metallic layer (1501) covering the third face stretching over a width less than the length of the third face, and the width of the metallic layer (1501) covering the third face is different from the width of the metallic layer (1503) covering the second face.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kundu in view of Adachi et al (US Patent 6,198,450 B1).

With respect to claim 6, Kundu discloses a dielectric resonator comprising a block of dielectric material having the metallic layer which covers the first face of the block and the other metallic layer cover that cover the second face of the block as discussed above in claim 1. However, Kundu does not suggest the dielectric resonator comprising a slot and microstrip. Adachi discloses, in Fig. 25, a slot (115a) provided in a substrate (112) and a microstrip line (114) provided on the substrate opposite to the face forming ground plane (col. 17, line 67) crossing the slot (115a). It would have been obvious to one having ordinary skill in the art at the time the invention was made to excite Kundu's dielectric resonator using the feeder circuit as taught by Adachi because using microstrip feeding line for feeding antennas will eliminated an use of coaxial feeder so that the low cost of manufacture will be obtained.

With respect to claims 7-9, Kundu discloses the claimed subjected matters as discussed above in claims 3-5 respectively.

Response to the arguments

8. With respect to amended claim 1, Applicant argues on page 10 of the argument that Kundu (US 6,621,381) does not suggest "at least one second face perpendicular to the first face

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is covered with a metallic layer contacting the metallic layer cover the first face, the metallic layer covering the second face extending over a width less than the width of the second face".

The Examiner respectively disagrees because Fig. 15 of Kundu clearly shown at least one second face (the face with metal layer 1503) perpendicular to the first face (1502) is covered with a metallic layer (1503, col. 15, lines 55-59) contacting the metallic layer cover the first face (1502), the metallic layer (1502c, 1503) covering the second face extending over a width less than the width of the second face.

In addition, an argument has been raised respecting claim 1 over Herve' Patent (US 6,304,220). In the argument, the applicant stated that claimed recitation of "block of dielectric material" is not anticipated by Herve. The Examiner respectively disagrees. In Fig. 1, the stacked structure that includes two resonant structures CDE and ABC constitute the claimed recitation of "a block of dielectric material". The Applicant further argues that the claimed invention including a single block of dielectric material. However, the feature upon which applicant relies ("a single block") is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

Conclusion

9. Applicant's amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

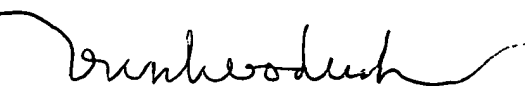
Inquiry

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*Trinh Vo Dinh
April 07, 2005*